What is claimed is:

1. A vernier pattern formed on a substrate comprising:

a) a first two-dimensional array of spaced shapes having a first distance across each shape and a first distance between adjacent shapes patterned overlying the substrate, wherein the first two-dimensional array has a first pitch defined by the sum of the first distance across each shape and the first distance between adjacent shapes;

b) a second two-dimensional array of spaced shapes having a second distance across each shape and a second distance between adjacent shapes patterned with photoresist overlying the first two-dimensional array, wherein the second two-dimensional array has a second pitch defined by the sum of the second distance across each shape and the second distance between adjacent shapes; and

c) wherein the second pitch is different then the first pitch.

2. The vernier of claim 1, wherein the first two-dimensional array has an x-axis and a y-axis which are symmetrical to each other.

3. The vernier of claim 1, wherein the first two-dimensional array has an x-axis and a y-axis which are asymmetrical relative to each other.

4. The vernier of claim 1, wherein the first distance across each shape is the same as the second distance across each shape.

5. The vernier of claim 1, wherein the first distance between adjacent shapes is the same as the second distance between adjacent shapes.

6. The vernier of claim 1, further comprising centerline marks.

7. The vernier of claim 1, further comprising negative direction marks.

8. The vernier of claim 1, further comprising positive direction marks.

9. The vernier of claim 1, wherein the first two-dimensional array of spaced shapes is a dark field pattern.

10. The vernier of claim 1, wherein the first two-dimensional array of spaced shapes is a light field pattern.

11. The vernier of claim 1, wherein the second two-dimensional array of spaced shapes is a dark field pattern.

12. The vernier of claim 1, wherein the second two-dimensional array of spaced shapes is a light field pattern.

13. A method of forming a vernier on a substrate comprising the steps of:

a) forming a reference pattern on the substrate;

b) depositing a layer of photoresist over the reference pattern; and

c) patterning the layer of photoresist to produce an active pattern.

14. The method of claim 13, wherein the step of forming a reference pattern further comprises etching a pattern into the silicon substrate.

15. The method of claim 13, wherein the step of forming a reference pattern further comprises depositing a layer of material over the substrate and etching a pattern into the layer of material.

16. The method of claim 13, wherein the step of forming a reference pattern further comprises depositing a layer of material over the substrate and etching a pattern into the layer of material, depositing a metal into the pattern and polishing the metal using CMP to produce a flat reference pattern.

17. The method of claim 13, wherein the step of forming a reference pattern produces a light field pattern.

18. The method of claim 13, wherein the step of forming a reference pattern produces a dark field pattern.

19. The method of claim 13, wherein the step of forming a active pattern produces a light field pattern.

20. The method of claim 13, wherein the step of forming a active pattern produces a dark field pattern.

21. A method of determining misalignment between two patterns formed over a substrate comprising the steps of:

a) positioning a two dimensional vernier under a microscope;

b) determining an alignment region;

c) identifying a pair of overlapped shapes that are most fully aligned; and

d) ascertaining the position of the pair of overlapped shapes.

22. The method of claim 21, wherein the step of determining the alignment region determines the alignment region in two dimensions simultaneously.

23. The method of claim 21, wherein the step of ascertaining the position of the pair of overlapped shapes ascertains the position in two dimensions simultaneously.

24. The method of claim 21, further comprising a step of calculating a level of misalignment in both dimensions.

25. The method of claim 24, wherein the step of calculating a level of misalignment comprises determining an integer number of shapes from the centerline for a first dimension and multiplying it by a resolution for the first dimension.

26. The method of claim 25, wherein the step of calculating a level of misalignment comprises determining an integer number of shapes from the centerline for a second dimension and multiplying it by a resolution for the second dimension.